REMARKS

Upon entry of this Amendment, claims 1-20 are all the claims pending in the application. Claims 1-17 have been examined and have been rejected. Specifically, Claim 1, 2, 4-9, and 11-17 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Hurd (US Pat. 4,457,422); Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hurd in view of Anmahian (US Pat. 4,393,758); and Claim 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hurd and Schwing et al (US Pat. 4,951,806).

For the reasons set forth below, Applicants respectfully traverse the rejections and request favorable disposition of the application.

Argument

Rejection Under 35 U.S.C. § 102

The rejection under 35 U.S.C. § 102 is based solely on Hurd (US Pat. 4,457,422). In other words, Hurd is relied on exclusively for describing and showing elements corresponding to each and every limitation recited in each of independent claims 1 and 15 as well as dependent claims 2, 4-9,11-14, and 16 and 17, dependent respectively, from one of the independent claims, either directly or serially.

Referring to claim 1, as now amended, Hurd does not anticipate or render that claim unpatentable. As noted in the office action, Hurd describes an inlet 104; an outlet 106; a first endless conveying element 96 having a contact surface and configured to transport at least one object along a transportation path from proximate the inlet to

proximate the outlet; and securing means 94 for securing the at least one object to the contact surface along a secured portion of the transportation path.

To expedite prosecution of the application, Applicants have amended claim 1, as illustrated above, to more clearly define the claimed "transportation path." Applicants submit that the prior art, in particular Hurd, fails to teach, or even suggest the claimed combination.

The embodiment depicted in Figure 7 of Hurd comprises the teaching relied upon in the Office Action and is now specifically addressed. Hurd discloses a conveyor system for transport of cartons from conveyors disposed at different heights. Hurd employs a pair of confronting belts 94 and 96 for conveying cartons where each belt is trained over its independent guidance system.

Hurd describes the upper belt 94 as extending:

from the entrance section 104 to the terminal section 106 over a plurality of pulleys including idler rollers 108, a tensioned roller 110 and a drive roller 122. The upper conveyor belt 94 is trained over a succession of support rollers 116 defining a convex entrance section to the conveyor.

Col. 4, lines 24-31

Hurd describes the lower belt 96 as being:

trained over a plurality of rollers between the entrance section and the terminal section including idler rollers 118, a spring tensioned roller 120 and a driver roller 122 which may be driven by power unit 104 [sic] and a suitable power transmission (not shown). The exit or lower terminal section of the lower belt is trained over a plurality of support rollers 124 arranged in a convex row.

Col. 4, lines 32-39.

Notably, Hurd also specifically discloses the presence of a straight section 126 as well as the use of a plurality of squeeze rollers 128 disposed, in part, therealong, to maintain tension by "a-gentle squeeze action" on the belts. (See, Col. 4 lines 40-52.)

As amended, claim 1 affirmatively recites the following limitations neither disclosed nor suggested by Hurd. Those limitations include, e.g.: 1) a generally curvilinear transportation path; 2) an endless conveying element to transport at least one object having a contact surface defining a portion of said curvilinear transportation path; 3) a main guide element including a generally arcuate perimetric surface delineating a portion of said curvilinear transportation path; and 4) a securing element that positions at least one object on the contact surface along the curvilinear transportation path. Accordingly, claim 1 recites a novel structure and is patentable over Hurd (as well as the other prior art of record) and the rejection of claim 1 should be withdrawn.

Claims 2 and 4, respectively, are dependant claims from independent claim 1.

Those dependant claims incorporate all of the limitations of claim 1 and further recite descriptive language such as the transportation path including a vertical component and that the object is secured between the securing surface and the contact surface.

Because Hurd does not anticipate or render obvious the invention of claim 1, the additional modifying language contained in claims 2 and 4 also recite patentable subject matter.

Claim 5 depends from dependant claim 4 and further defines the invention as possessing a second main guide element and a serpentine transportation path and vertical displacement between the inlet and outlet. The invention of claim 5 presents a novel structure and is patentable over the prior art of record, including Hurd for no less reason than its dependence on independent claim 1.

Dependant claim 6 and claim 7 recite a specified spatial relationship of the respective components comprising the invention of claim 5. Like claim 5, these further dependant claims recite novel and inventive structures and so are entitled to allowance.

Dependant claims 8, 9, 11, 12, 13, 14, and 16 are likewise patentable over the prior art of record at least by virtue of their dependence on independent claim 1 and by reciting the dimensional limitations associated with the main guide roller, by reciting the additional limitations of a drive system, and by delineating sterilizabilty.

Rejection Under 35 U.S.C. § 103

The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,457,422 to Hurd in view of U.S. Patent No. 4,393,758 to Anmahian.

Applicants have amended claim3 to make more apparent differences between the claimed invention and the prior art. Applicants respectfully submit that the now amended pending claim 3 is patentable over the art of record, and is otherwise in condition for allowance.

The details of Hurd are disclosed above. Anmahian was cited as broadly showing an endless conveyor element with a securing surface for conveying an object between it and the confronting belt. Applicants traverse the proposed combination on several grounds. First, Anmahian describes a machine for wrapping Mexican foodstuffs using a single foldable/deformable conveyor belt (Col. 1, line 54 and Col. 2 line 63+). The conveying system disclosed in Anmahian specifically is intended to fold a tortilla layer so that it envelops a filler material and to "roll the food product relative to its longitudinal axis" on the belt (See Col. 6, line 10-14). In addition, Anmahian teaches the use of flanged wheel 68 and upwardly extending rollers 60 to cooperate with and distort the belt into an overlapping orientation, thereby folding the tortilla with pressure over the filler (Col. 4 line 63- Col. 5 line 5). Because the intent of the Anmahian structure is to both distort the conveyor and to mold the filler being carried thereon, the proposed combination with Hurd and the motivation to make the combination are not understood. Clearly, the entire notion of deforming the carried articles is inconsistent with both Hurd and the present invention. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (finding no suggestion to modify a prior art device where the modification would render the device inoperable for its intended purpose).

As amended, claim 3 clearly recites that the securing means is movable with the contact surface along a substantial portion of the transportation path; a feature not present in Hurd where the conveyor belts are separated and driven independently.

Consequently, the proposed combination of Hurd and Anmahian does not even make the invention defined in Claim 3.

The Examiner rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,457,422 to Hurd in view of U.S. Patent No. 4,951,806 to Schwing et al. The Examiner cited Schwing et al for its teaching of large, broad guide rollers for a double belt conveyor system particularly useful for vertical transport of viscous or rolling materials. The Examiner's reliance on Schwing et al, however, is misplaced. Schwing et al teaches a structure including combination of recessed rollers 16/22 (Col. 4, line 31-34, 40) that co-act with lateral reinforcements 27 and buckled sections 17 of the covering band belt 19 (Col 4 lines 55-59) for retaining the conveyed material. In contrast, claim 10 recites the limitations of claim 1 augmented by the presence of a low bending force guide roller (See Application page 6 line 14-18) that avoids damage to the conveyed object. Applicants respectfully submit, there would have been no motivation to modify Hurd with Schwing et al in an attempt to achieve the combination of claim 10, because a purpose of the claimed invention would thereby be defeated. First, the Figure 7 embodiment of Hurd relies on two independent, spaced belts while the laterally directed Schwing et al belt fasteners are specifically designed to inter-engage. Secondly, the Schwing et al belt fasteners are specified as being resistant to bending/deformation (Col 3 lines 28-30) which would impart deforming force on the conveyed object.

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Amendment Dated May 23, 2005

Reply to Office action of February 23, 2005

Appl. No. 10/758,194

Particularly in view of the amended claims presented herein, which are intended

to more particularly recite the metes and bounds of the invention, Applicants respectfully

traverse the proposed combination of Hurd with Schwing et al as applied to claim 10.

Independent claim 15, as amended, is believed to be patentable over the prior art

at least because Hurd does not teach or suggest sterilizable unitary conveying elements

in the stated combination for the stated functions Accordingly, the subject matter of

claim 15 is patentably distinguished from the disclosure of Sherman and the rejection of

claim 15 should be withdrawn.

New Claims 18-20

New claims 18- 20 are fully supported by the disclosure in the specification.

Claims 18 and 19 are method claims of the type permitted by Ex Parte Porter, 25

USPQ2d 1144 (BPAI 1992) and M.P.E.P. 608.01(n)(II). Claim 20 is a means-plus-

function claim that incorporates limitations such as the overlapping of the means for

conveying and means for securing over the curvilinear transportation path. (See, e.g.,

paragraph 22 of the specification.) All of these claims are presented for examination

and are believed to be allowable over the prior art of record consistent with the above-

presented arguments. Entry of and favorable action thereon are solicited.

Conclusion

In view of the above, reconsideration and allowance of this application are now

believed to be in order, and such actions are hereby solicited. If any points remain in

issue which the Examiner feels may be best resolved through a personal or telephone

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interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted, CAHN & SAMUELS, LLP

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